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ABSTRACT

An exchange program is described in which two groups of high school science students, one from Long Island, New York, and one from upstate New York, visited each other's school districts for three days to broaden their experiences with different physical and geological surroundings. The inland group of students was exposed to marine geology and the coastal group experienced mountain geology and ecology. It is proposed that the National Science Teachers Association (NSTA) act as a broker to arrange additional exchange programs of this type. (MH)

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The Science Exchange Program - A Proposal

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In an age of instant communication via radio, television, and telephone, the diversity of exposure of students to scientific events and different cultures is truly amazing. These experiences are, however, usually superficial and without the impact to make them memorable. As such they serve to broaden the student somewhat yet still leave a need for a better way to bring real depth and understanding to their education. One technique that will achieve these goals is a student exchange program.

In the fall of 1973 Mr. Edward Decker, at that time a biology teacher in the Hadley-Luzerne school district in upstate New York, approached me with the idea of arranging an exchange of students so that each group might broaden their experience with the physical and natural world. His initial suggestion led to a series of letters and phone calls in which we jointly expanded and developed this idea.

The Hadley-Luzerne area offered my students the opportunity to gain direct experience with mountain geology and ecology not available on Long Island. For the Hadley-Luzerne students we offered marine science and glacial moraine geology, something they had not experienced. We quickly realized that the social differences between rural Hadley-Luzerne and suburban Miller Place offered the further dimension of expanding the students' appreciation of different life styles in our country. We each developed several trip proposals which were modified and adjusted to suit both parties. Ten students each, including boys and girls, were selected to serve the dual function of host and participant during the two phases of the exchange. Each group was accompanied by teachers who acted as chaperones, resource people, guides, and in some cases bus drivers.

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The trip upstate into the Adirondack Mountains was as fantastic as the display of autumn colors. We visited garnet and titanium mines, examined potholes and quaking bogs. There was a cookout given by the school, a night sleeping at the homes of hosts, and the highlight of the exchange, a backpacking trip into the mountains with overnight camping. It was a very tired group that drove back to Long Island.

A few weeks later the Hadley-Luzerne students came to Miller Place. They spent a day at a salt marsh with a cookout before night plankton sampling. The following day we worked a harbor area examining a rock jetty, dunes and the harbor proper. Both evenings the visiting students slept in the homes of hosts. The morning of their last day was spent on the barrier beaches that underline Long Island's south shore.

For a first time effort with no prior experience, the exchange was very successful. The participants were treated to a memorable experience that exposed them to natural and social differences they had not encountered before. The follow-up written evaluation and the continued contact between the two groups of students through letters and later trips on their own confirmed the achievement of the original goals. There was, however, the feeling that certain procedures would improve the program considerably:

1. Expectations of behavior should be clearly set.
2. Leisure time should be supervised.
3. The parents of participants should play a more active role.
4. Scientific and social events should be clearly separated.
5. Objectives for each activity during the trip should be set.
6. Each activity should have a follow-up to maximize its educational value.

Implementation of these suggestions would have made our exchange even

more valuable.

Since the fall of 1973 I have not been able to arrange another exchange. Something has come up at this end or that to prevent another trip. This suggested to me that a broader base for trip selection would enhance the chances of getting an exchange going. Therefore I propose that the National Science Teachers Association act as a marriage broker to help parties interested in an exchange program get together.

The first step would be publicity campaign on the part of NSTA to make teachers aware of the value inherent in an exchange program. This could be in the form of an article in The Science Teacher and periodic reinforcement of the program. The meat of this proposal would be the development of a directory of interested teachers. Submissions to the directory would include the name of the teacher, the school district and address, the area of the state, the number of students that could be accomodated, and a brief description of the scientific features the locality has to offer. This could include natural phenomena as well as local industry, labs. and universities students could visit.

All individuals who make a submission to the directory would be entitled to a copy. They could then contact directly an appropriate exchange group making all the arrangements themselves. NSTA would not get involved directly in arranging any exchanges, rather it would serve the more appropriate role of catalyst. In subsequent years The Science Teacher and the various NSTA conventions could serve to encourage, expand and update the directory.

An exchange program between schools can do much to enhance the depth of science experiences and social contacts among the diverse

peoples of our country. Since individual teachers usually lack the contacts to initiate such a program, it is appropriate for the National Science Teachers Association to serve such a role. The understandings, both scientific and social, generated by such a program would enhance the participants, NSTA, and science education.

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